

**Remarks**

Claims 1-28 are currently pending and stand rejected. Claims 1, 3, 10, 13, and 19 have been amended. Claims 11, 12, 14, and 18 have been cancelled. Reconsideration of the above-identified application in view of the present amendment and remarks is respectfully requested.

I. **Objection to Abstract**

The Examiner has objected to the abstract for the presence of reference numerals in the drawings. It is noted, however, that neither 37 C.F.R. §1.72(b) nor MPEP §608.01(b) prohibit the use of reference numerals in the abstract.

II. **Rejection of Claims 1-5, 7-10, 19-23, and 25-28 under 35 U.S.C. §102**

Claims 1-5, 7-11, 19-23, and 25-28 have been rejected as anticipated by an article "Feature Extraction for a Multiple Pattern Classification Neural Network System" by Murphey et al. (hereinafter: "Murphey"). Claims 1 and 19 have been amended to recite the generation of three-dimensional training images at a stereo camera. Murphey does not teach an image source and deals with two dimensional images, as is evidenced by the average and negative class image equations provided in the first column of page 221 of Murphey. It is thus respectfully submitted that claims 1 and 19 are therefore novel over Murphey. Claims 2-5, 7-10, 20-23, and 25-28 each depend from one of claims 1 and 19, and are novel over Murphy for at least the same reasons. Claim 11 has been cancelled. It is thus respectfully requested that the rejection of claims 1-5, 7-10, 19-23, and 25-28 under 35 U.S.C. §102 as anticipated by Murphey be withdrawn.

**III. Rejection of Claims 6, 12-18, and 24 under 35 U.S.C. §103(a)**

Claim 6 has been rejected as unpatentable under 35 U.S.C. §103(a) over Murphey. Claims 12-17 have been rejected as unpatentable over Murphy in view of U.S. Patent No. 6,801,662 to Owechko et al. (hereinafter: "Owechko"). Claim 18 has been rejected as unpatentable over Murphey and Owechko in further in view of U.S. Patent No. 5,983,147 to Krumm (hereinafter: "Krumm"). Claim 24 has been rejected as unpatentable over Murphey in view of common knowledge as evidenced by U.S. Patent Publication No. 2002/0051571 by Jackway et al (hereinafter: "Jackway"). Claims 1 and 19 have been amended to recite subject matter similar to that of claim 12, and will be discussed herein. Claims 12, 14, and 18 have been cancelled. It is respectfully submitted that claims 1-10, 13, 15-17, and 19-28 define over the cited art.

Each of claims 1 and 13 recite a stereo vision system that provides three-dimensional training images, an image synthesizer that combines the plurality of three-dimensional training images into a three-dimensional class composite image, and a grid generator that generates a three-dimensional grid pattern representing the output class from the three-dimensional class composite image. Claim 19 recites similar subject matter in method form.

The Examiner states that it would be obvious to incorporate the stereo vision system of Owechko into the system described in Murphey to "provide the ability to measure the depth of objects and surfaces in the area and to not lose the head track and start tracking the occupant hands." Office Action, pg. 11 (citations omitted). It is respectfully submitted, however, that Murphey does not discuss the use of the grid

generation system for head tracking nor inform one of skill in the art of how the grid generation system might be applied to head tracking. It is thus respectfully submitted that one of skill in the art would have no reason to incorporate the stereo camera system of Owechko into the Murphey methodology to improve head tracking, as nothing in either reference would lead one of skill in the art to the conclusion that the grid generation scheme of Owechko would be useful in tracking an occupant's head. Similarly, Murphey does not teach or suggest extension of the two-dimensional grid generation algorithm to three-dimensions, and it is respectfully submitted that one of skill in the art, presented with Murphey, would not seek "the ability to measure the depth of objects and surfaces in the area" as proposed in the Office Action. There is simply nothing in Murphey, even read in view of Owechko, that would suggest any utility to be gained from the addition of depth data or suggest the extension of the grid generation algorithm to depth data in a manner comprehensible to one of skill in the art. It is thus respectfully submitted that claims 1, 13, and 19 define over the proposed combination of Murphey and Owechko.

Krumm and Jackway fail to overcome the deficiencies of Murphey and Owechko as described above. It is respectfully submitted that claims 1, 13, and 19 define over the cited art.

Each of claims 2-10, 15-17, and 20-28 depend, directly or indirectly, from one of claims 1, 13, and 19 and are allowable for at least the same reasons as their associated independent claims are allowable. The withdrawal of the rejection of

claims 1-10, 13, 15-17, and 19-28 under 35 U.S.C. §103 is thus respectfully requested.

**IV. Conclusion**

In light of the amendment and remarks above, it is respectfully submitted that claims 1-10, 13, 15-17, and 19-28 define over the cited art. The withdrawal of the rejections of these claims and the passage of the application to allowance is respectfully requested.

Please charge any deficiency or credit any overpayment in the fees for this matter to our Deposit Account No. 20-0090

Respectfully submitted,

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